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SELECTION AND CLASSIFICATION
OF AIRCREW OFFICERS



CLASSIFICATION CHANGED	
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PSYCHOLOGICAL BRANCH
RESEARCH DIVISION
OFFICE OF THE AIR SURGEON

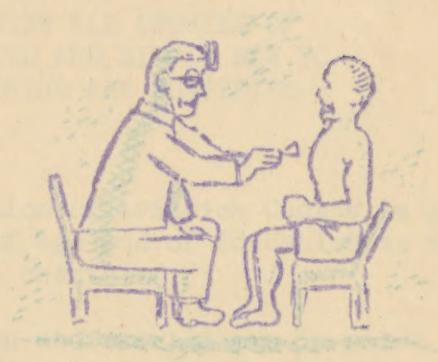
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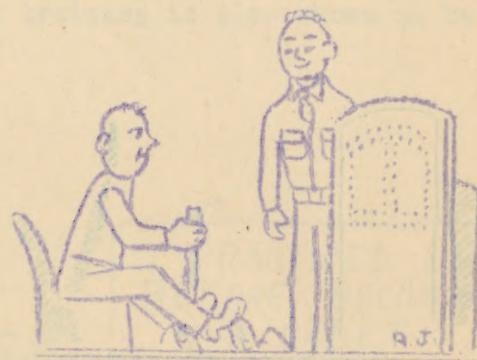
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CAREFUL SELECTION MEANS BETTER
PILOTS, BOMBARDIERS, AND NAVIGATORS

Men are selected for Aviation Cadet training after thorough physical and psychological examinations. Final classification of those who meet physical and aptitude requirements is based upon three factors.



Preference for pilot, bombardier, or navigator training



Psychological aptitude for different types of training (Pilot, Bombardier and Navigator Stanines)



Previous training and flying experience

On the following pages is presented graphically a description of the men who are being trained to fly for the Army Air Forces. Research findings from the Air Surgeon's Aviation Psychology Program are summarized, showing how success in aircrew training can be predicted.

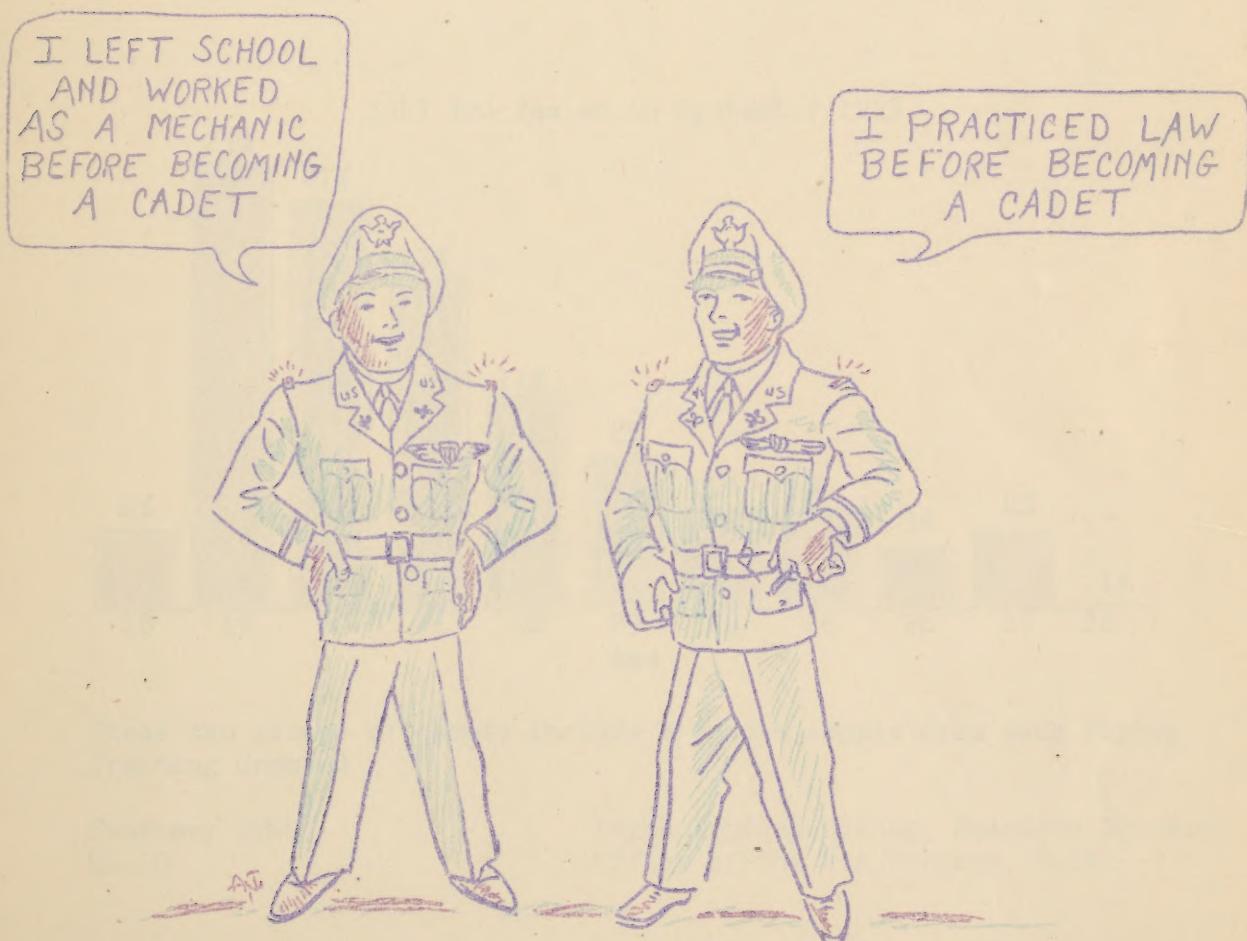
PRESENT AGE REQUIREMENTS FOR AVIATION CADETS
ARE SATISFACTORY

REQUIREMENTS PERMITTING MEN WITH ALL DEGREES OF
FORMAL EDUCATION AND BOTH MARRIED AND SINGLE MEN TO
APPLY FOR AVIATION CADET TRAINING ARE JUSTIFIED

Information about the Age and Education of Aviation Cadets is given in the following section. The relation of Age and of Education to success in pilot training is presented in several charts.

The comparative success of single men and married men in pilot training is also shown.

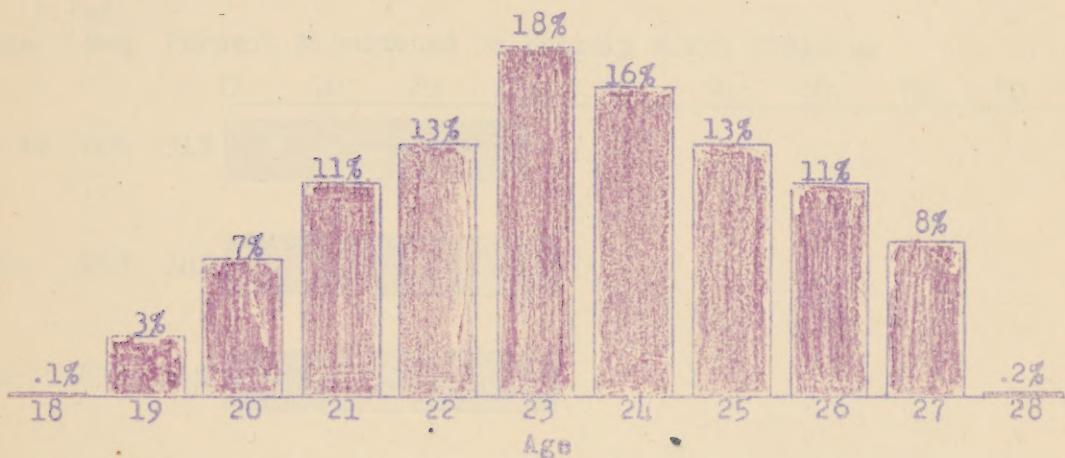
The fact that younger men are slightly more successful in primary and basic pilot training is encouraging in view of the fact that the majority of recent Aviation Cadet candidates are quite young. There are no restrictions on Aviation Cadet applicants with respect to educational status; results confirm the soundness of this policy. The present policy of admitting married men to Aviation Cadet training is also shown to be justified.



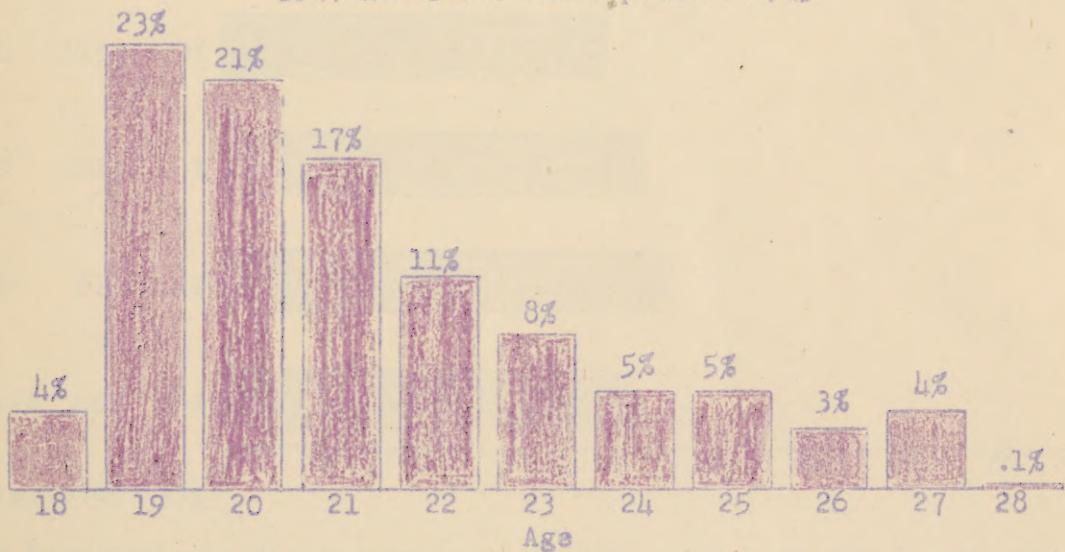
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MORE AVIATION CADETS ARE BEING DRAWN FROM YOUNGER AGE GROUPS THAN WAS TRUE A YEAR AGO

3205 Men Tested in September 1942



3347 Men Tested in September 1943



These two groups of cadets include a random sample from each Flying Training Command

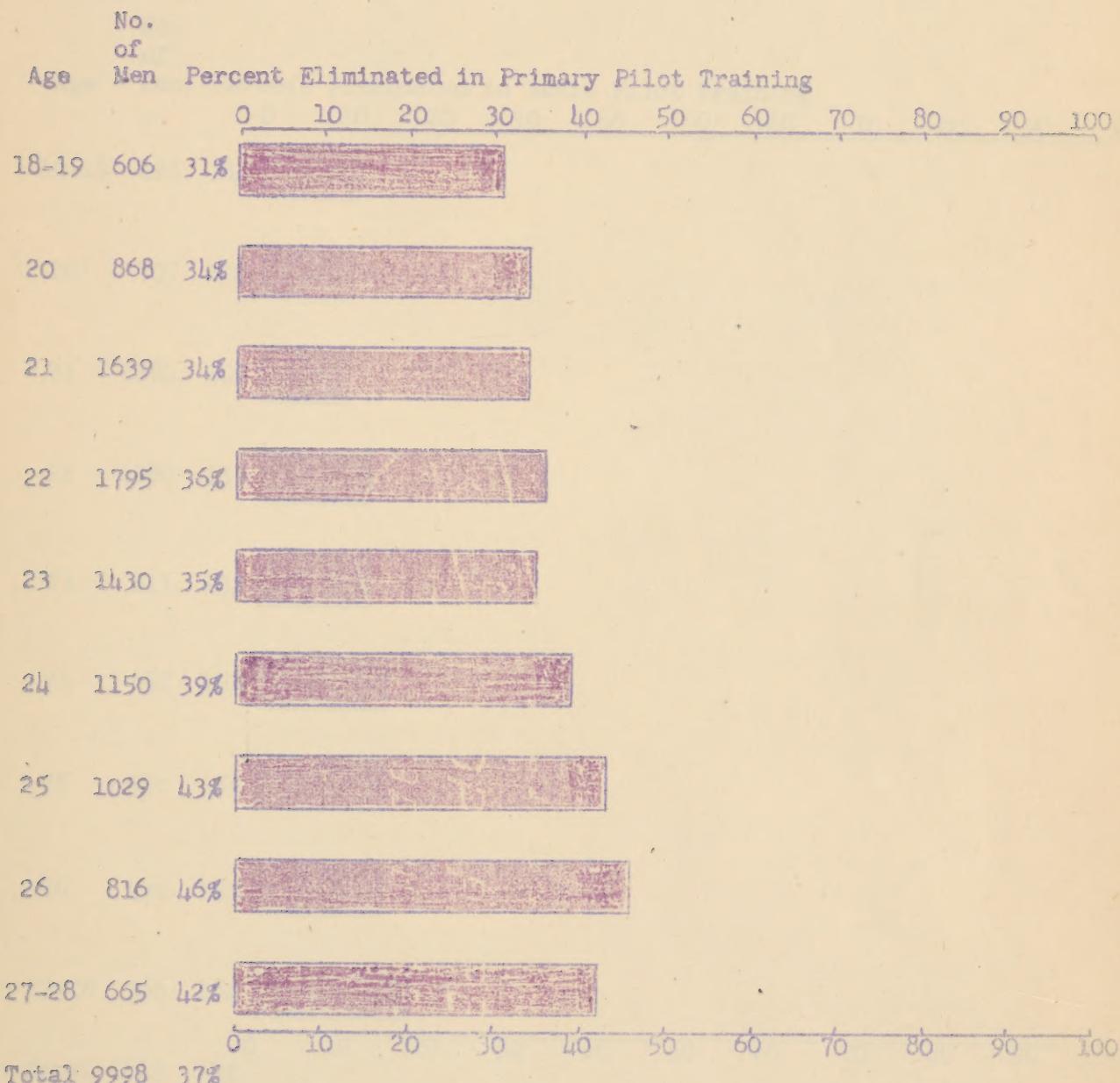
February 1944
44-10

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YOUNGER MEN HAVE A SLIGHTLY BETTER CHANCE OF SUCCEEDING IN PRIMARY PILOT TRAINING THAN OLDER MEN



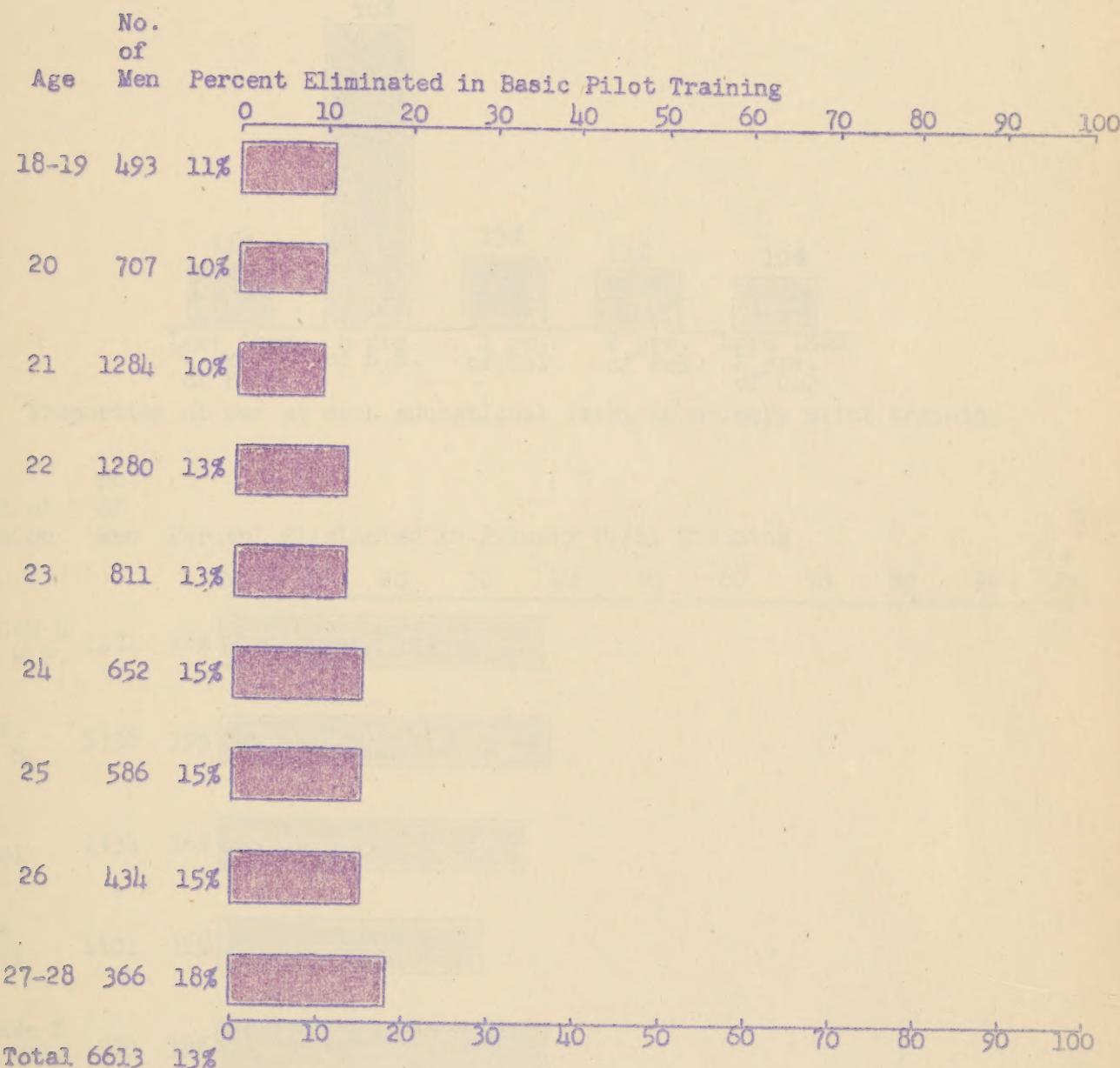
The bars indicate the proportions eliminated at each age in Primary Pilot Training, Class 43-H. Elimination is for flying deficiency, fear, and own request. Age is the age to the nearest birthday at the time of classification for pilot training.

February, 1944
44-9

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YOUNGER MEN HAVE A SLIGHTLY BETTER CHANCE OF SUCCEEDING IN BASIC PILOT TRAINING THAN OLDER MEN



The bars indicate the proportions eliminated at each age in Basic Pilot Training, Class 43-I. Elimination is for flying deficiency, fear, and own request. Age is the age at the nearest birthday at the time of classification for pilot training.

January, 1944

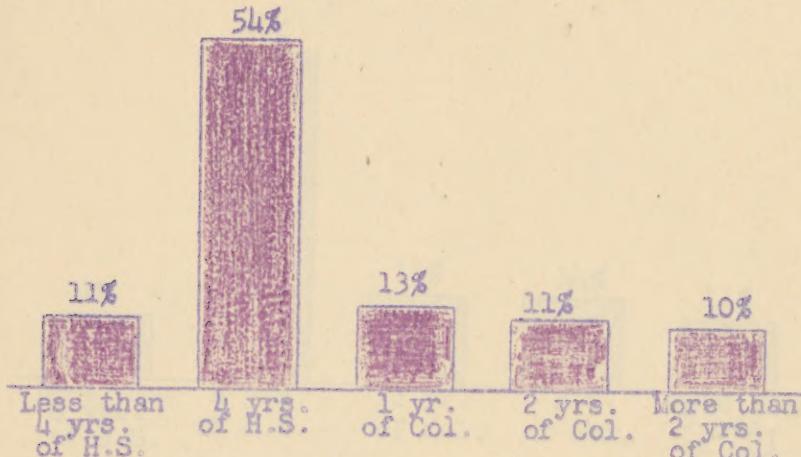
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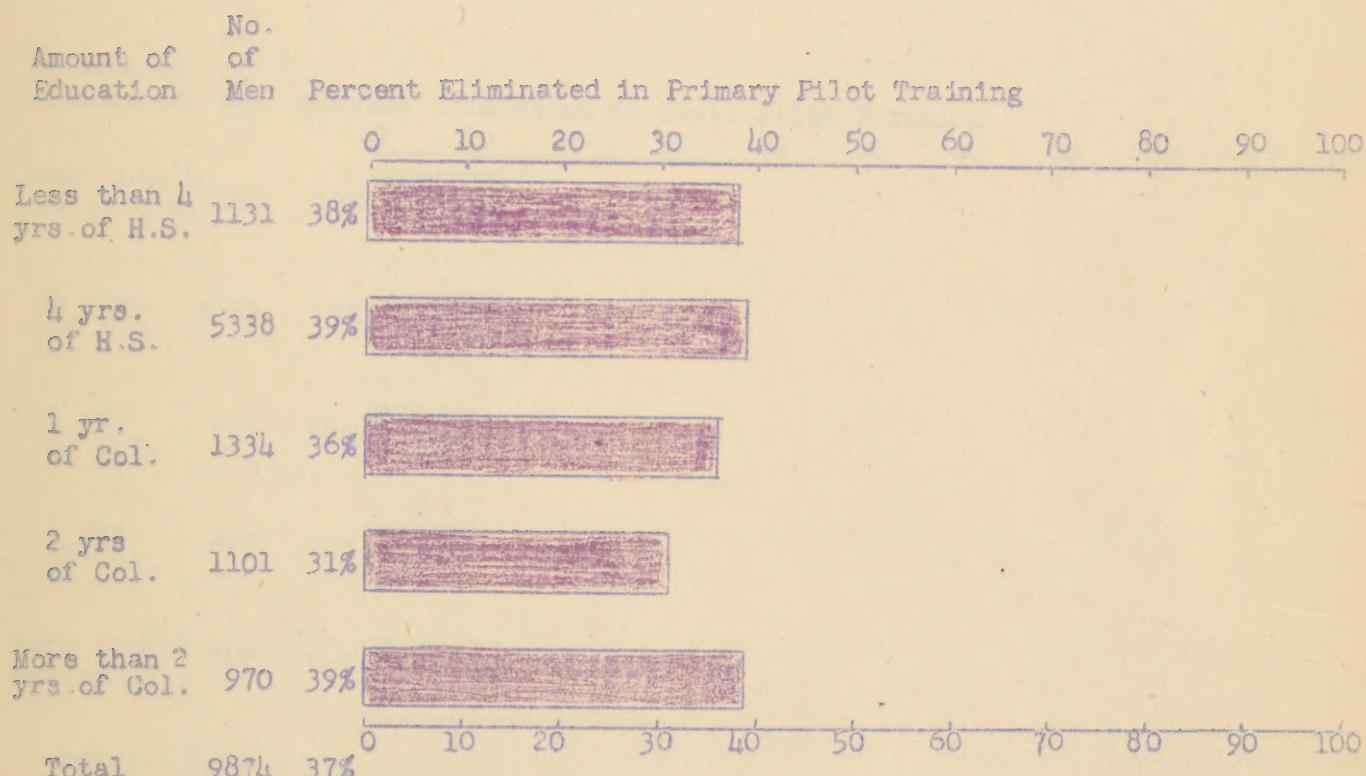
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EIGHTY-NINE OUT OF ONE HUNDRED CADETS IN PRIMARY PILOT TRAINING
HAVE A HIGH SCHOOL EDUCATION OR BETTER

AMONG AVIATION CADETS WHO HAVE QUALIFIED FOR PILOT TRAINING THE AMOUNT OF EDUCATION BEARS LITTLE RELATION TO SUCCESS IN PRIMARY PILOT TRAINING



Proportion of men at each educational level in primary pilot training



Percent of men at each educational level eliminated in primary schools

These results are for Class 43-H for all training centers. Elimination is for flying deficiency, fear, and own request.

February 1944
44-12

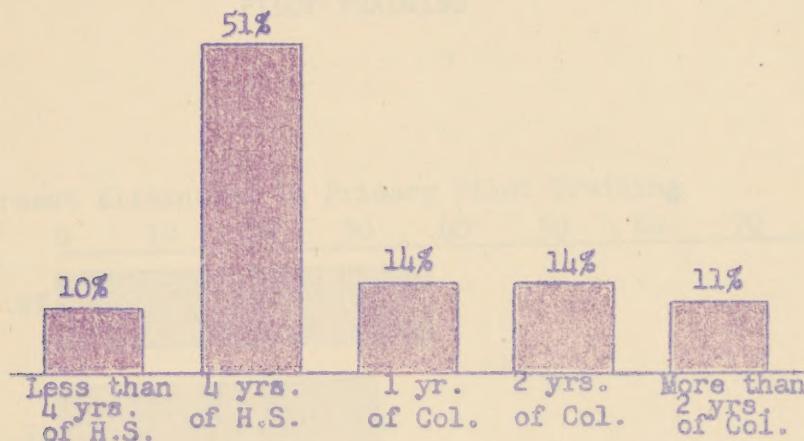
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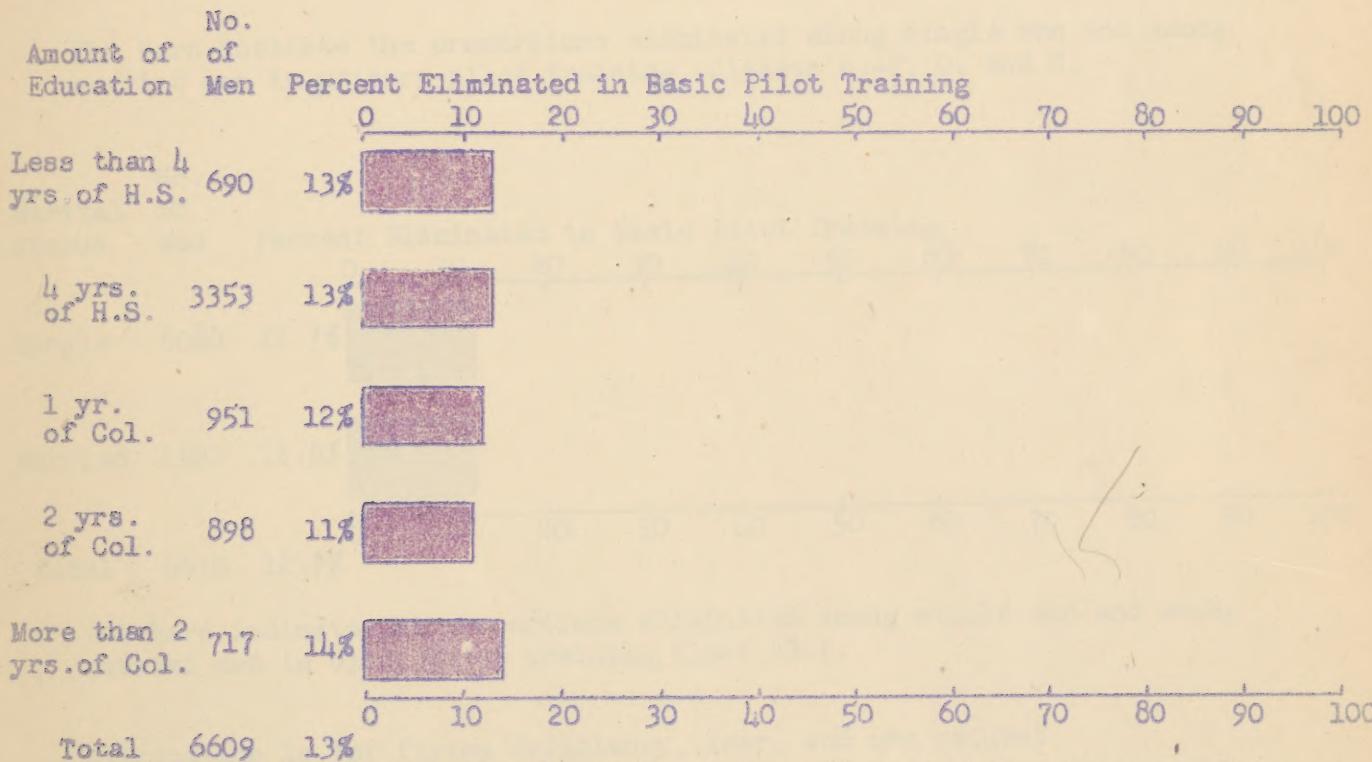
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NINE OUT OF TEN CADETS IN BASIC PILOT TRAINING HAVE A HIGH SCHOOL EDUCATION OR BETTER

AMONG AVIATION CADETS WHO HAVE QUALIFIED FOR PILOT TRAINING THE AMOUNT OF EDUCATION BEARS LITTLE RELATION TO SUCCESS IN BASIC SCHOOLS



Proportion of men at each educational level in basic schools.



Percent of men at each educational level eliminated in basic schools.

These results are for Class 43-I. Elimination is for flying deficiency, fear, and own request.

January, 1944

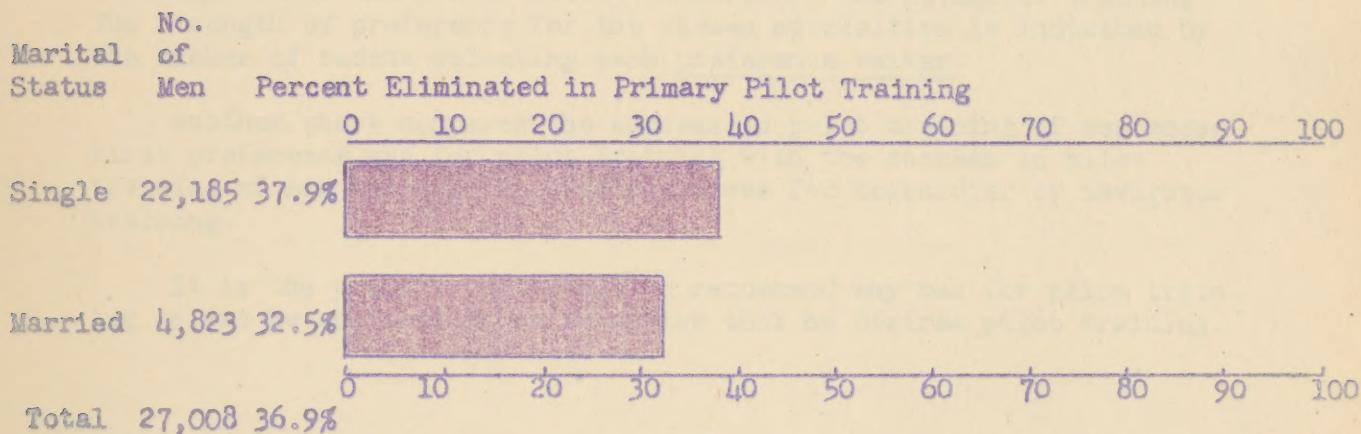
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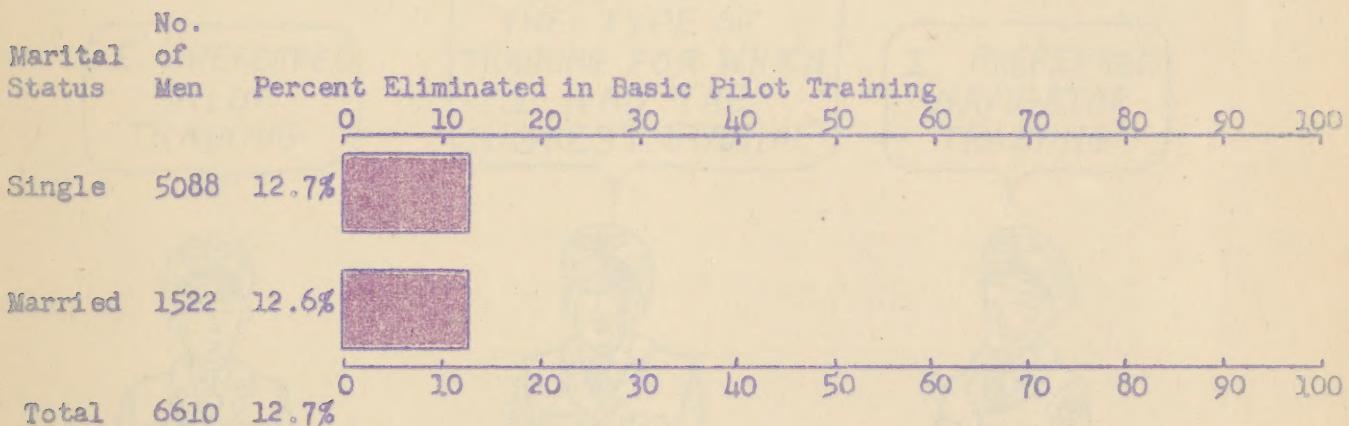
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MARRIED MEN HAVE A SOMEWHAT BETTER CHANCE OF SUCCEEDING IN PRIMARY PILOT TRAINING THAN SINGLE MEN

MARRIED MEN AND SINGLE MEN HAVE EQUALLY GOOD CHANCES FOR SUCCESS IN BASIC PILOT TRAINING



The bars indicate the proportions eliminated among single men and among married men in primary pilot training, Classes 43-F, G, and H.



The bars indicate the proportions eliminated among single men and among married men in basic pilot training, Class 43-I.

Elimination is for flying deficiency, fear, and own request.

January, 1944

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SUCCESSFUL AVIATION CADETS MUST HAVE A
STRONG INTEREST IN FLYING

In the following section is a chart showing the proportions of Aviation Cadets who prefer Pilot, Bomber, and Navigator training. The strength of preference for the chosen specialties is indicated by the number of cadets selecting each preference waiver.

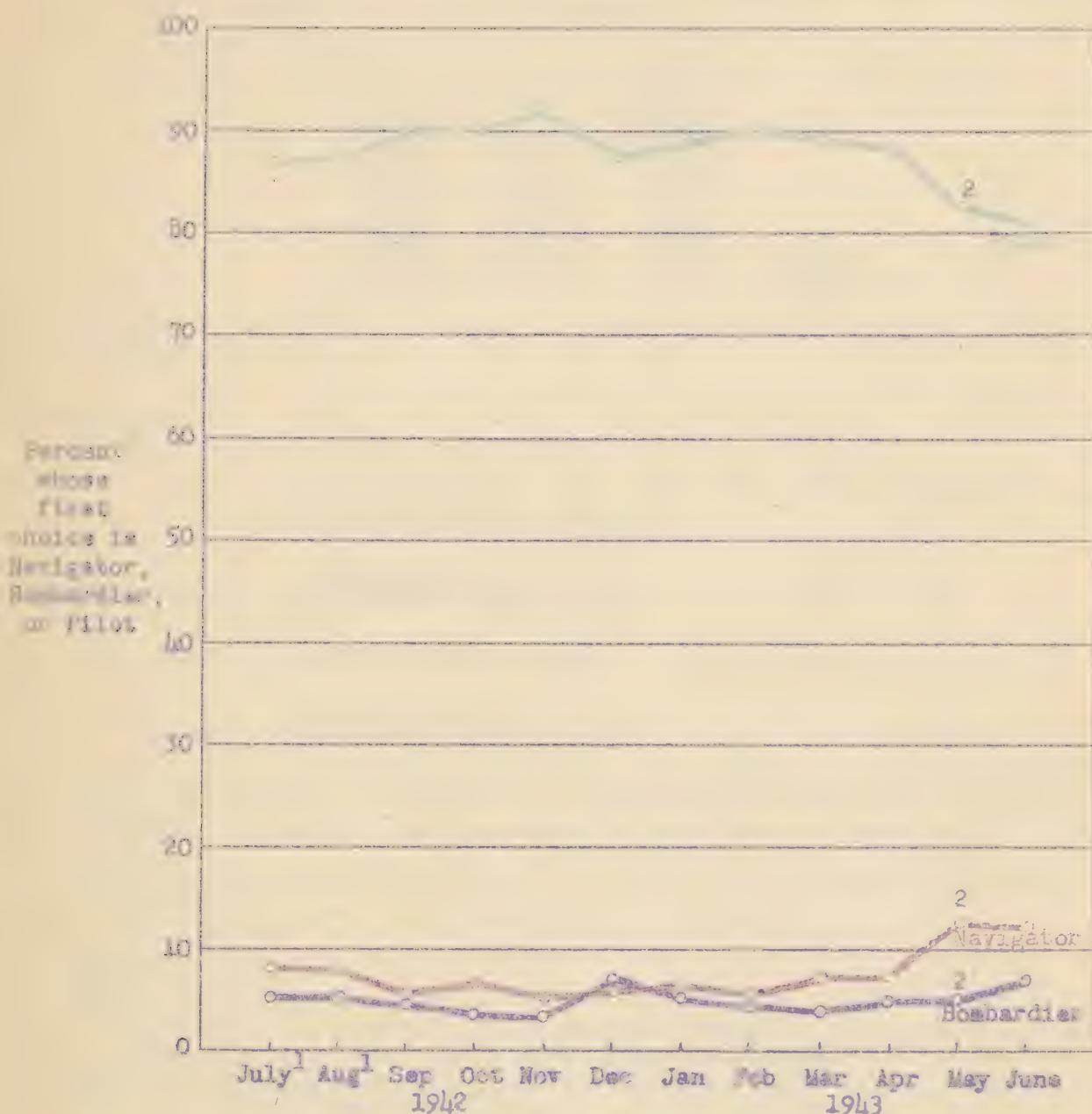
Another chart compares the success in pilot training of men whose first preference was for pilot training with the success in pilot training of men whose first preference was for Bomber or navigator training.

It is the present policy not to recommend any man for pilot training unless he confirms in an interview that he desires pilot training.



CASES FOR PILOT, BOMBARDIER, AND NAVIGATOR TRAINING

169,000 cases



1 Percentages for July and August are based on data from classification centers 1 and 3 only; percentages for the rest of the fiscal year are based on data from all three classification centers.

2 The groups for May and June are atypical, since they were selected from college training program students because of high scores on the Educational Examination.

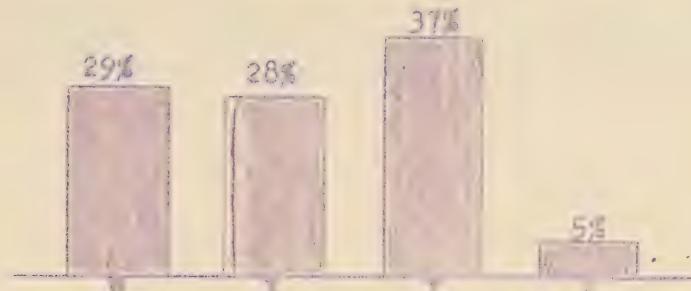
10 November 1943

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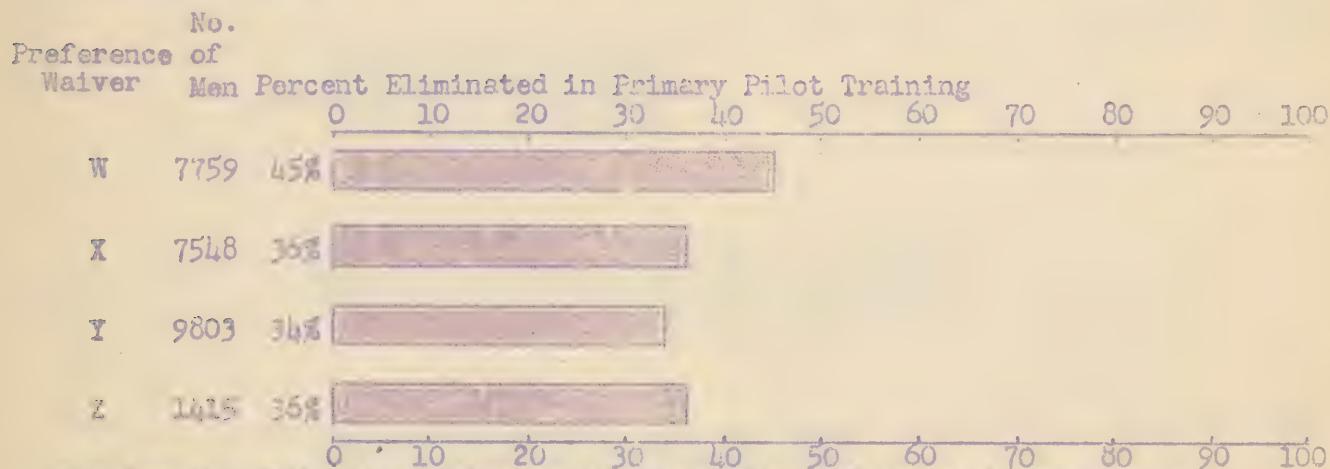
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MEN DIFFER IN THE STRENGTH OF THEIR FIRST PREFERENCE IN AIRCREW TRAINING

MEN WHOSE FIRST PREFERENCE IN AIRCREW TRAINING IS WEAK ARE SOMEWHAT MORE LIKELY TO BE ELIMINATED IN PRIMARY PILOT TRAINING THAN MEN WITH STRONGER PREFERENCES



The height of the bar indicates the proportion of men choosing each preference waiver.



The length of the bar indicates the proportion of those choosing each preference waiver who are eliminated in primary pilot training.

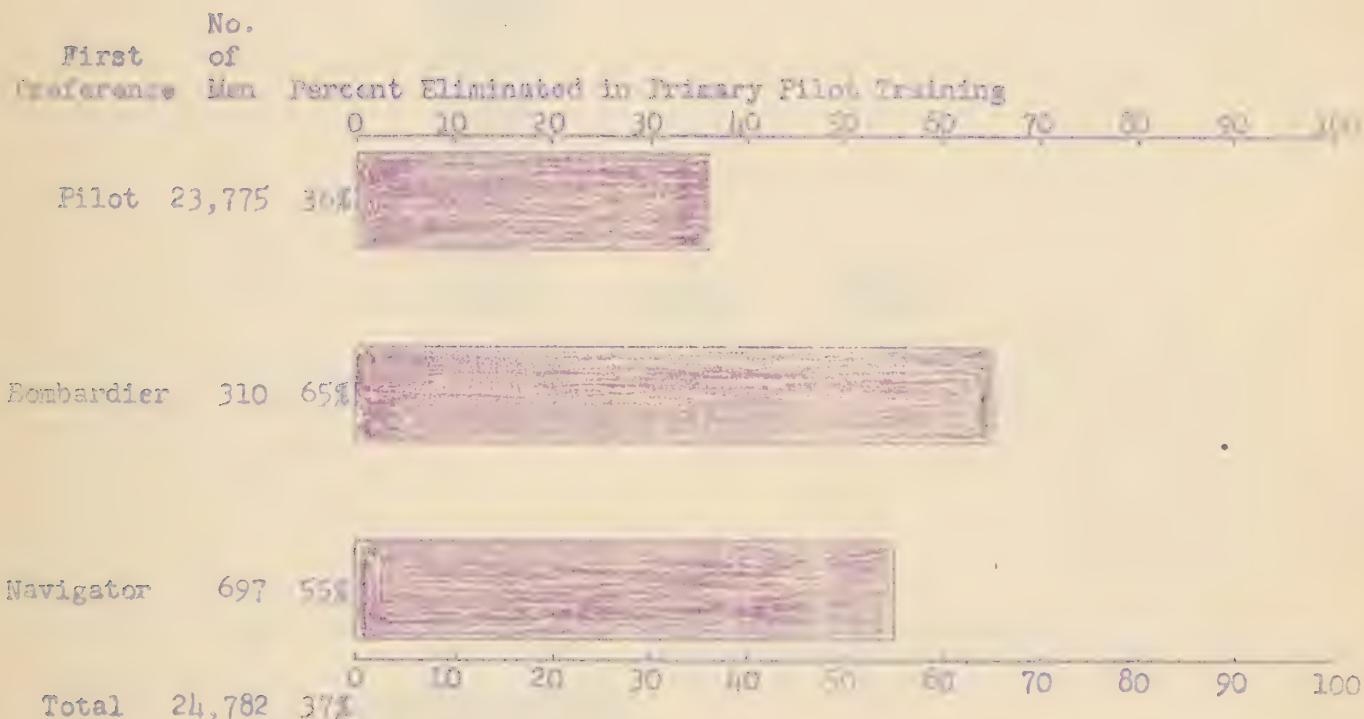
These data are from Classes I, II, C, and H. Elimination is for flying deficiency, fear, and own request.

Legend:

- W - I would prefer to be classified for the type of duty for which I am found to have most aptitude, even though it is not the same as the duty for which I expressed first preference.
- X - I would prefer to be classified for the type of duty for which I am found to have most aptitude, only if my aptitude for that type of duty is distinctly higher than for the duty for which I expressed first preference.
- Y - I would prefer to be classified for the type of duty for which I am found to have most aptitude, only if my aptitude for my first preference is so low as to indicate that I would probably be eliminated from that type of training.
- Z - I would strongly prefer to be assigned to the type of training for which I indicated first preference, even though it is probable that I will not be successful in this type of training.

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MEN WHOSE FIRST PREFERENCE WAS FOR PILOT TRAINING ARE MORE LIKELY TO SUCCEED IN PRIMARY PILOT TRAINING THAN MEN WHOSE FIRST PREFERENCE WAS FOR NAVIGATOR OR BOMBARDIER TRAINING



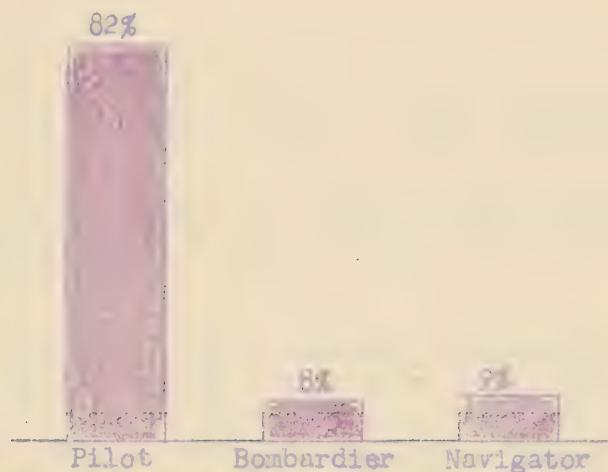
These data are from Classes I, II-F, G, and H. Elimination is for flying deficiency, fear, and own request. The proportion of men assigned to pilot training whose first preference was for navigator or bombardier training is very small. Of the total number of men in these classes only 1.25% preferred bombardier training and only 2.81% preferred navigator training. But two-thirds of the former and over half of the latter were eliminated in primary pilot training, as compared with about one-third of those whose first preference was for pilot training.

Men are assigned to pilot training against their first preference either because they do not qualify for their first preference or because of quota requirements. Men who do not qualify for their first preference are interviewed and recommended for pilot training only if they state a desire for such training.

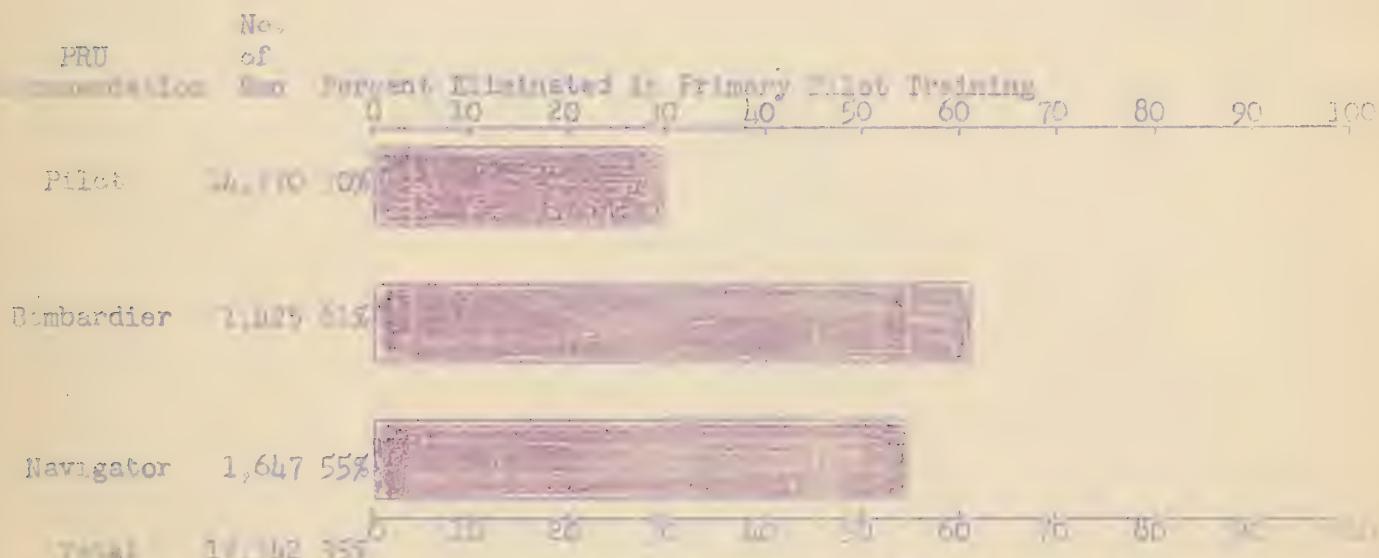
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SOME OF THE CADETS IN PILOT TRAINING ARE HIGH WHO WERE RECOMMENDED BY THE PSYCHOLOGICAL RESEARCH UNITS FOR BOMBARDIER OR NAVIGATOR TRAINING

THE ELIMINATION RATE IS ALMOST TWICE AS HIGH AMONG CADETS IN PILOT TRAINING WHO WERE RECOMMENDED FOR BOMBARDIER OR NAVIGATOR TRAINING AS AMONG THOSE WHO WERE RECOMMENDED FOR PILOT TRAINING



The height of the bar indicates the proportion of cadets in pilot training who were recommended by the Psychological Research Units for each type of training.



The length of the bar indicates the proportion of those cadets recommended for each type of training who were eliminated in primary pilot training.

These data are from Classes 43-F, G, and H. Elimination is for flying deficiency, fear, and own request.

February 1944
14-14

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PILOT STANINES INDICATE THE PROBABILITY OF SUCCESS IN PILOT TRAINING

In the following section are shown the results of pilot stanine scores in predicting success in Primary, Basic, and Advanced training.

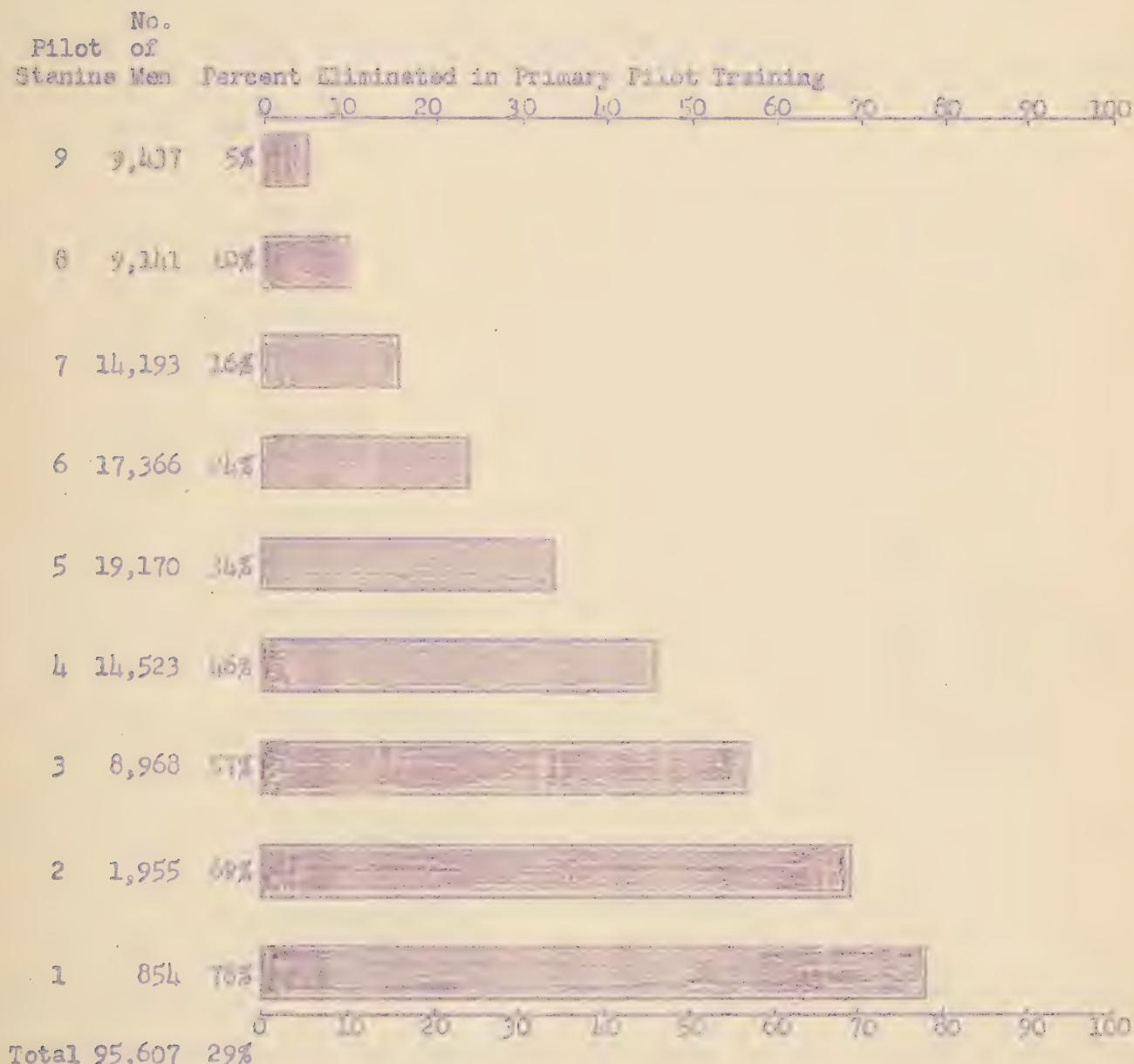
Other charts show the relation of original pilot stanines to transition training on two and four-engine bombers, the relation of stanines to number of hits in fixed gunnery, and the relation of stanines to flying accidents.

The aptitude testing program has been outstandingly successful. In the face of manpower shortages and great acceleration in the training program, the present standards for accepting Aviation Cadets insure that Aviation Cadets classified for pilot training possess exceptionally high aptitude for learning to fly.



REFINERIES

THE HIGHER THE PILOT STANINE THE GREATER THE CHANCES OF SUCCESS IN
PRIMARY PILOT TRAINING

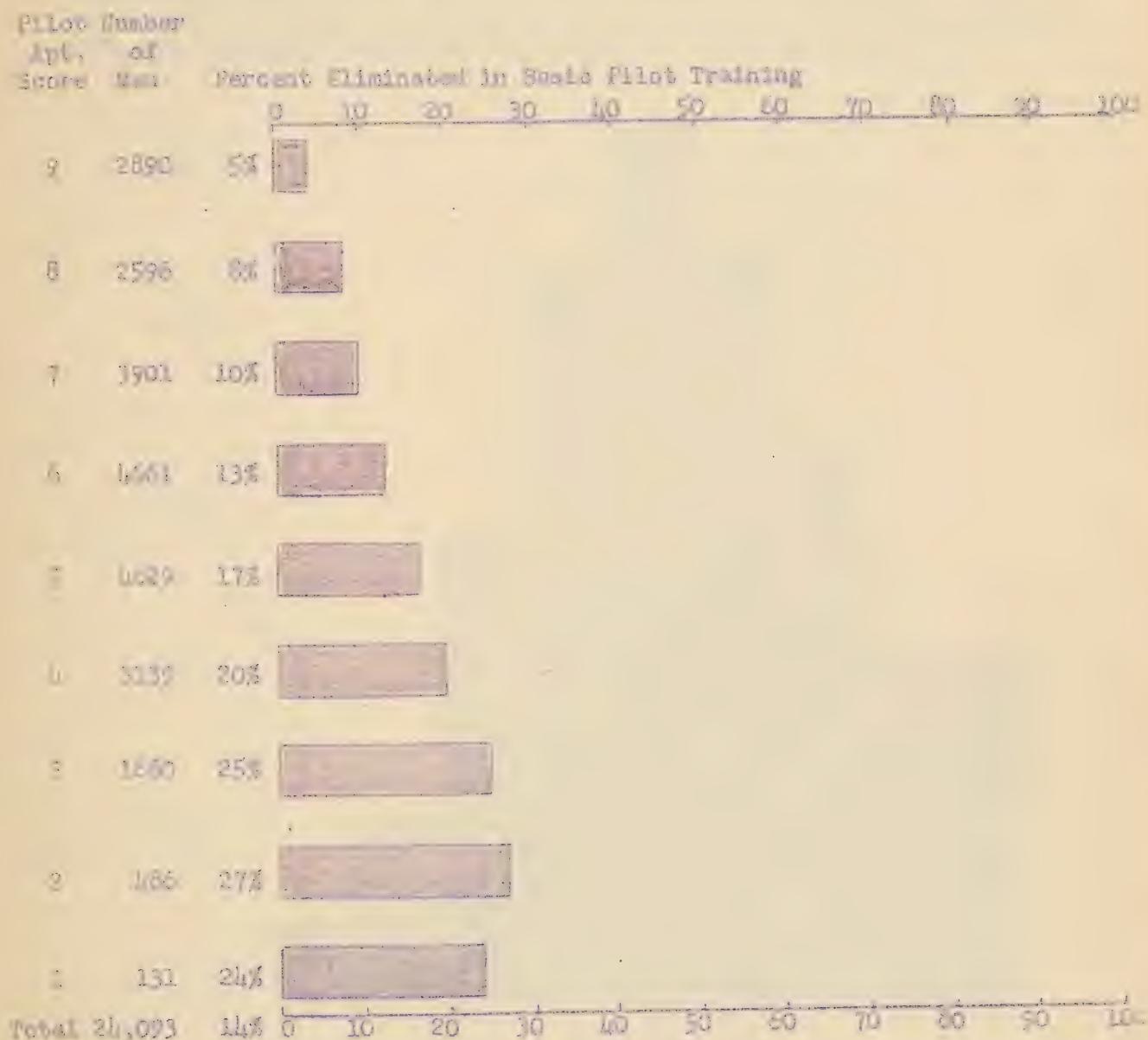


The bars indicate the proportion eliminated at each pilot stanine. Elimination is for flying deficiency, fear, and own request. Flying experience credit is included in the stanine scores. The data are from Classes 43-F, G, H, I, J, and K and 44-A, B, and C at all training commands. Men with low stanines scores are now disqualifed for pilot training; most of the men with low stanines included in the chart entered primary schools early in 1943.

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THE NUMBER OF PILOTS ABANDONED, AND THE MEASURE OF SUCCESS IN BASIC PILOT TRAINING



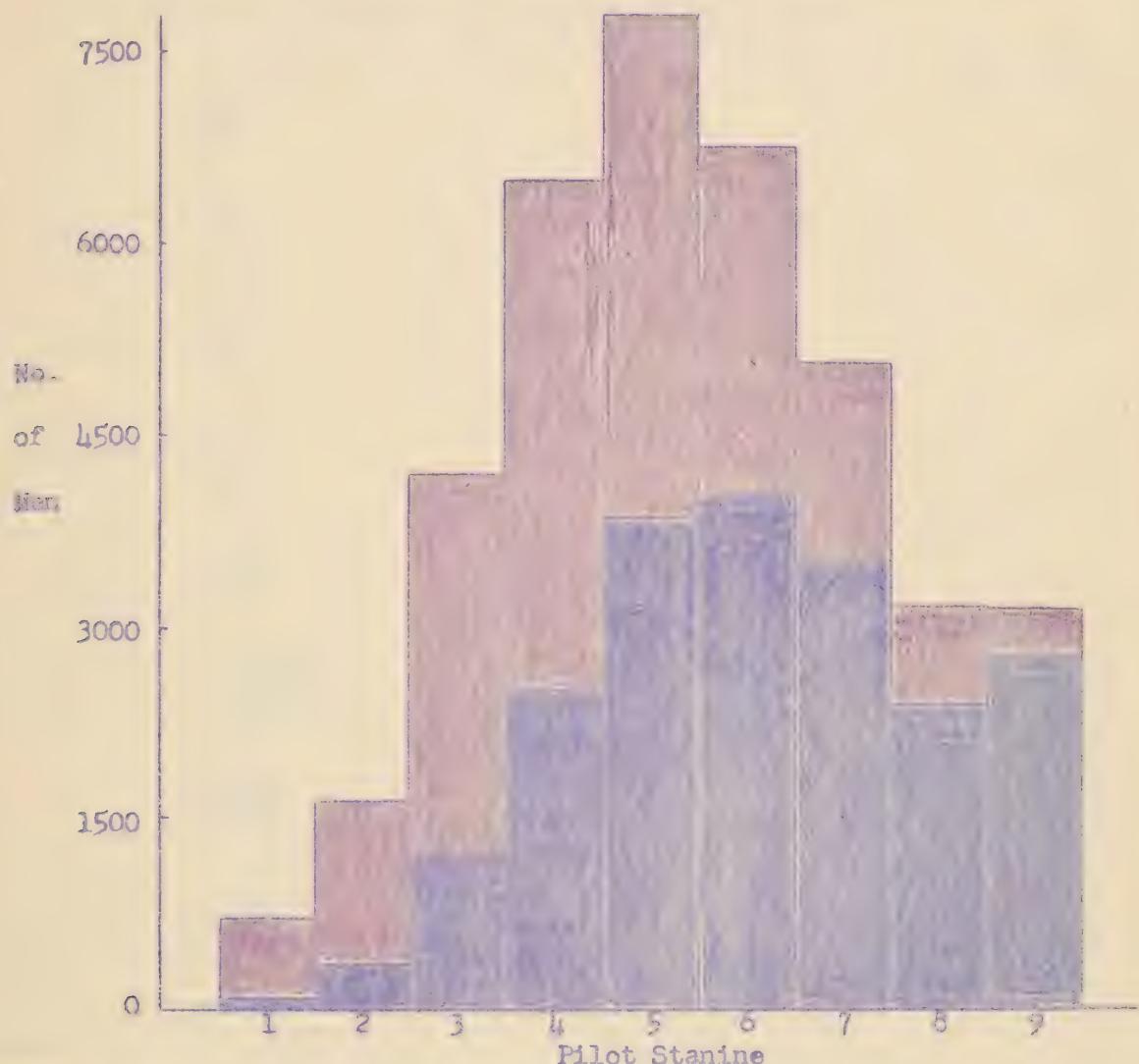
The bars indicate the proportions eliminated at each Pilot Aptitude Score. Included is elimination for flying deficiency, fear, and own request. Flying experience credit is included in the aptitude score. The total of 24,093 cases are from Classes 43-F, G, H, and I, basic training, at all three training centers.

10 December 1943

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CADETS WHO ENTER PRIMARY PILOT TRAINING WITH LOW STANINES HAVE A VERY SMALL CHANCE OF LASTING THROUGH BASIC TRAINING; THOSE WHO ENTER PRIMARY WITH HIGH STANINES HAVE A VERY GOOD CHANCE OF GETTING THROUGH BASIC



Graduates from basic training

Eliminees from Primary and basic training for all reasons

The total height of each bar represents the number of men at each stanine who entered primary schools. The red area of each bar represents the number who were eliminated either in primary or basic training; the blue area of each bar represents the number who graduated from basic. Results are based on 38,946 cases in Classes 43-F, G, H, and I at all three training commands. Elimination is for flying deficiency, fear, and own request.

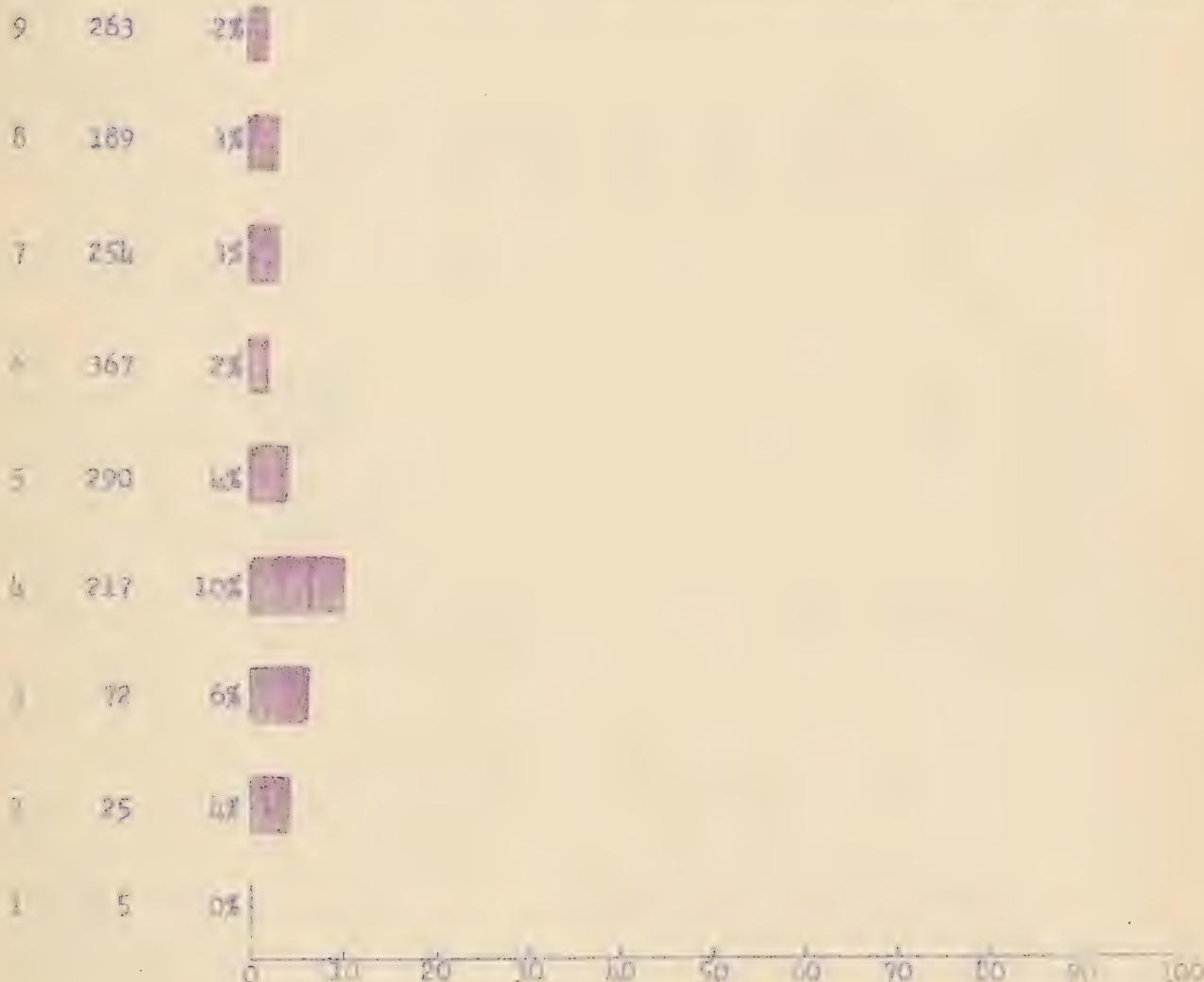
RELATION OF PILOT APTITUDE SCORE TO ELIMINATION IN ADVANCED TRAINING

1682 Aviation Cadets

Pilot
Apt. Total
Score No.

Percent Eliminated in Advanced Pilot Training

0	10	20	30	40	50	60	70	80	90	100
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Note: These data are from Class 43-C Southeast, single engine and twin engine training combined. Elimination is for flying deficiency. Experience credit is included.

16 November 1943

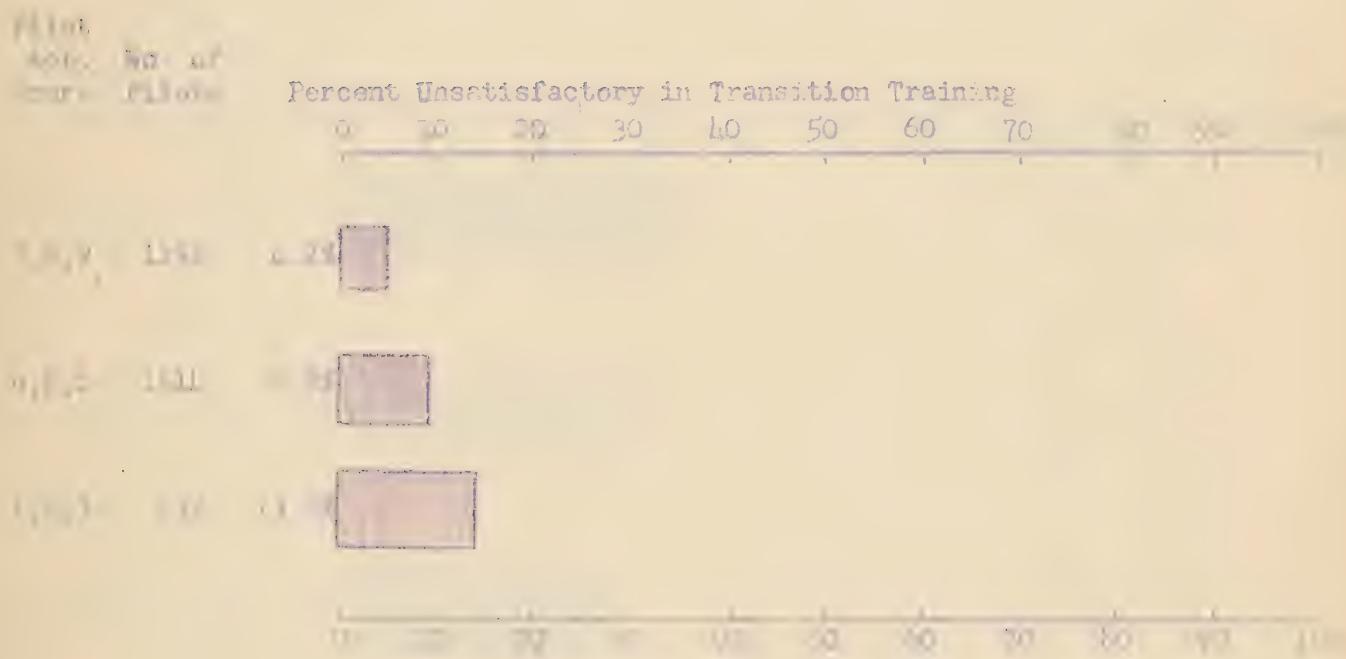
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RELATION OF PILOT ATTITUDE toward UNSATISFACTORIE
PERFORMANCE IN TWO-ENGINE AND FOUR-ENGINE
TRANSITION TRAINING

2902 Pilots



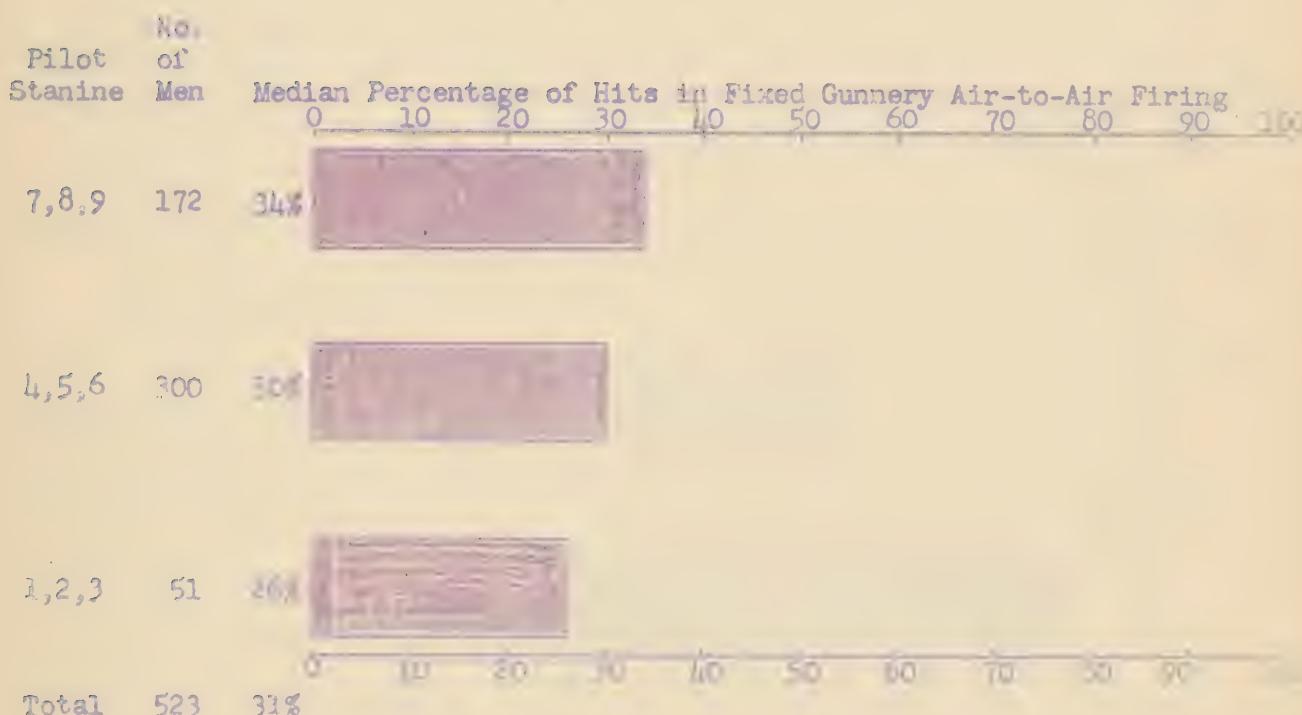
These data are from Classes 43-D, F, and G; all transition training schools.

1 November 1944

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CADETS WITH HIGH PILOT STANINES MAKE A LARGER PERCENTAGE OF HITS IN FIXED GUNNERY AIR-TO-AIR FIRING THAN CADETS WITH LOW PILOT STANINES



The length of the bar indicates the average percentage of hits scored by cadets at each stanine level.

These data are from Class 43-2 single-engine training, at four southwest advanced flying schools. Experience credit is not included.

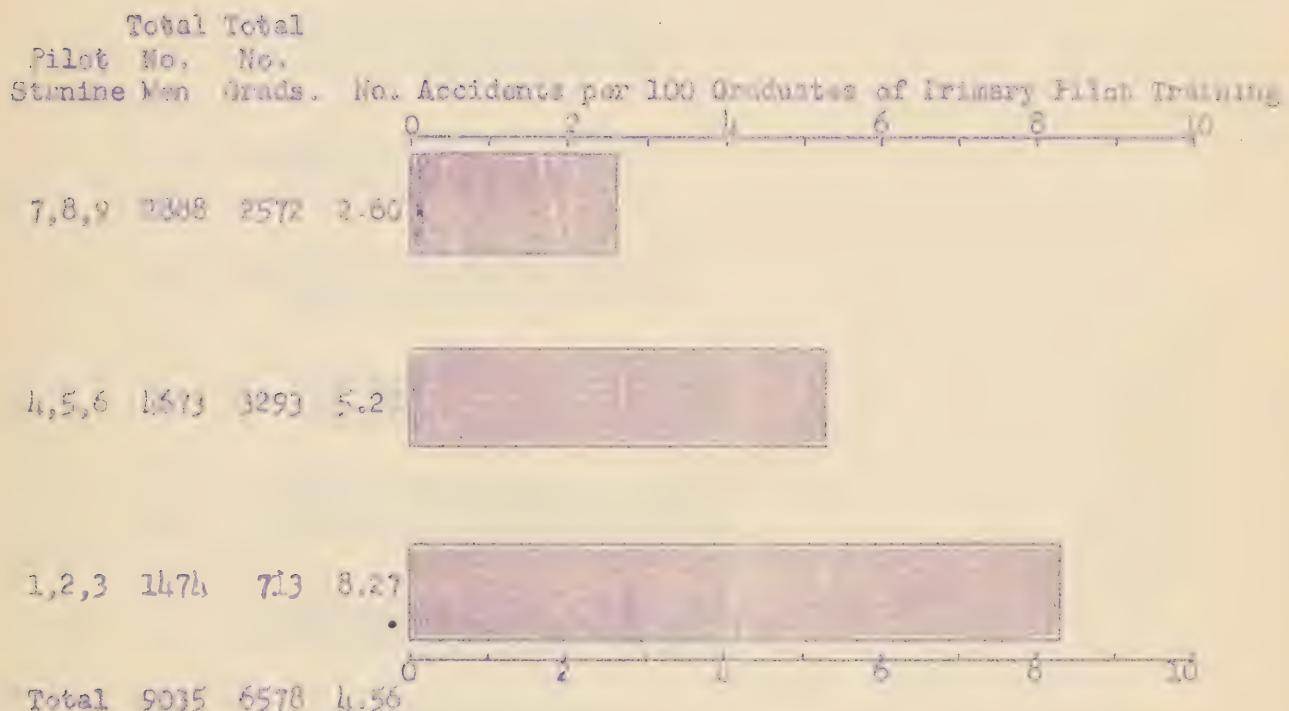
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THERE IS A SUBSTANTIALLY GREATER COST IN ACCIDENTS PER 100 GRADUATES FROM PRIMARY PILOT TRAINING AMONG CADETS WITH LOW PILOT STANINES THAN AMONG CADETS WITH HIGH PILOT STANINES



The length of the bar indicates the number of accidents per 100 graduates at each pilot stanine.

These data are from West Coast Classes 43-D, I, II, and 3.

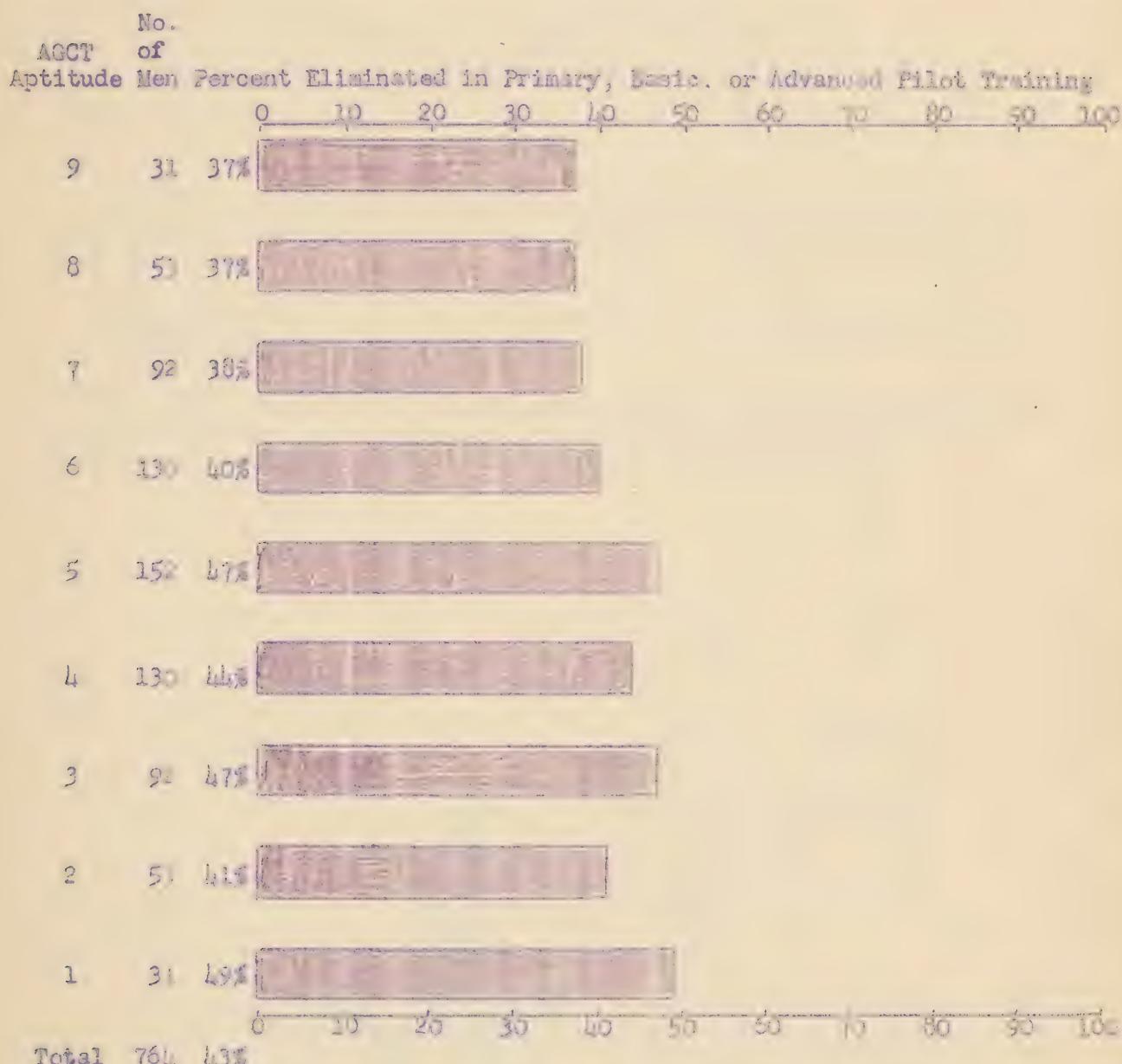
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THERE IS A VERY SLIGHT RELATIONSHIP BETWEEN SCORE ON THE ARMY GENERAL CLASSIFICATION TEST AND SUCCESS IN PILOT TRAINING



The above data are for a group of enlisted men trained as Sergeant Pilots in Class 42-J. AGCT scores, obtained from the Form 20, were divided into nine groups with highest AGCT scores rated 9 and lowest scores 1, to make them comparable with pilot training scores. The length of the bars indicates the proportion of men at each AGCT level who were eliminated in primary, basic, or advanced training because of flying deficiency, fear, own request, etc.

February, 1944
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BOMBARDIER AND NAVIGATOR STANINES
PREDICT SUCCESS IN THESE SPECIALTIES

In the following section are shown the results of Navigator and Bombardier Stanines in predicting success in Bombardier and Navigator training.

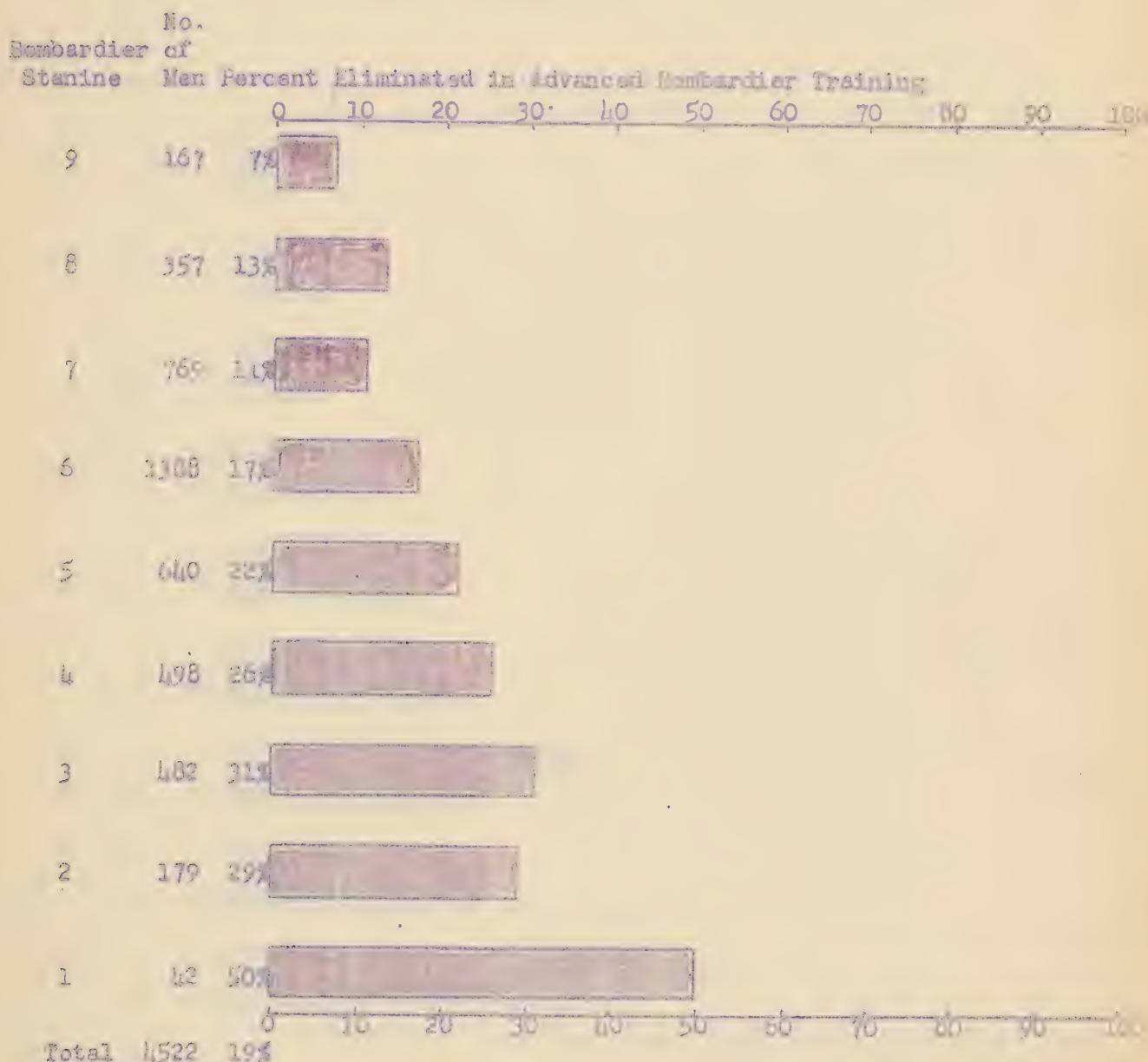
Results of selection procedures for these specialties have been very satisfactory.

Data are presented comparing cadets assigned directly to Bombardier or Navigator training with cadets who have been eliminated from Pilot training and re-assigned to Bombardier or Navigator training.



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THE HIGHER THE BOMBARDIER STANINE THE GREATER THE CHANCES OF SUCCESS IN
ADVANCED BOMBARDIER TRAINING



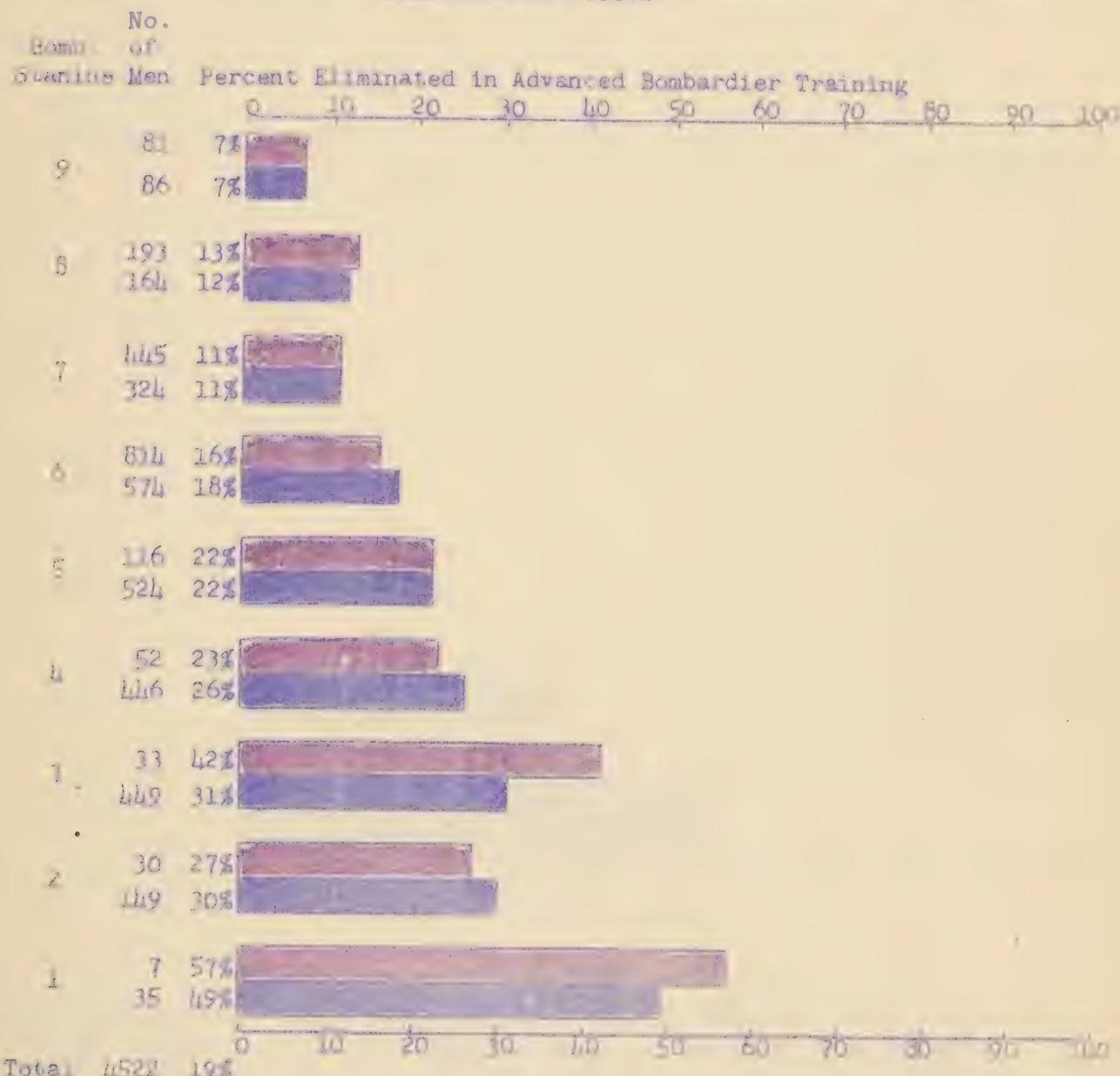
The bars indicate the proportion eliminated at each bombardier stanine. Data for eliminated pilots and new aviation cadets are combined for Classes 43-8, 9, 10, and 11 at eight bombardier schools. Elimination is for unsatisfactory progress, fail, and non request.

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THERE IS NO CONSISTENT DIFFERENCE IN LIKELIHOOD OF SUCCESS IN BOMBARDIER TRAINING BETWEEN NEW AVIATION CADETS WHO GO INTO BOMBARDIER TRAINING AND MEN WITH THE SAME STANINE WHO TAKE UP BOMBARDIER TRAINING AFTER BEING ELIMINATED AS PILOTS



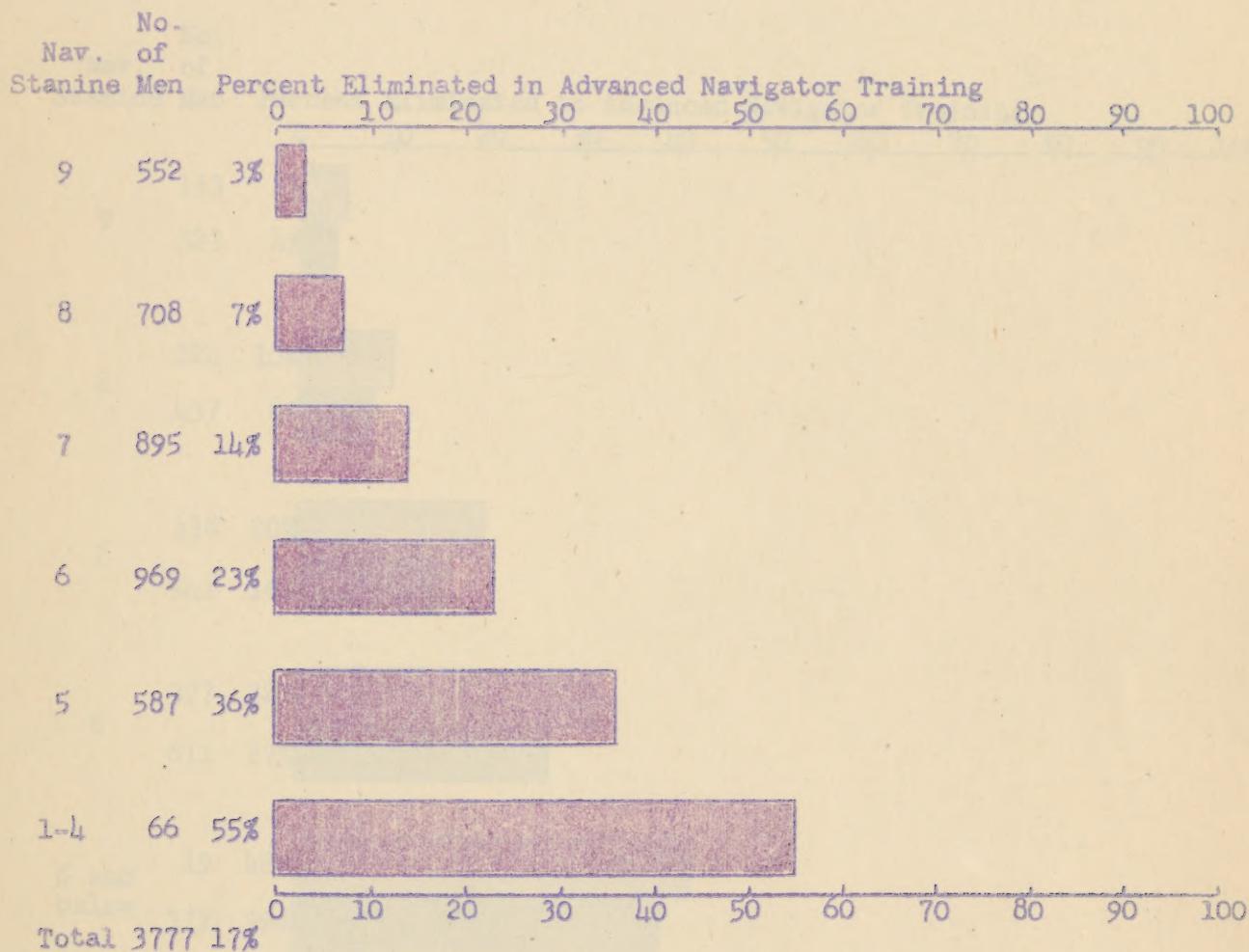
██████████ 1771 Eliminated Pilots.

██████████ 2751 New Aviation Cadets.

The bars indicate the proportion eliminated at each Bombardier stanine score for eliminated pilots reassigned to bombardier training and for new aviation Cadets. Results are based on Bombardier Classes 45-8, 9, 10, and 11 at all training commands.

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THE HIGHER THE NAVIGATOR STANINE, THE GREATER THE CHANCES OF SUCCESS IN ADVANCED NAVIGATOR TRAINING



The bars indicate the proportions eliminated at each navigator stanine score. Elimination is for flying deficiency, fear, and own request. Both new Aviation Cadets and eliminated pilots are included. Results are based on Classes 43-8, 10, 11, 12, 13, and 14 at all training commands.

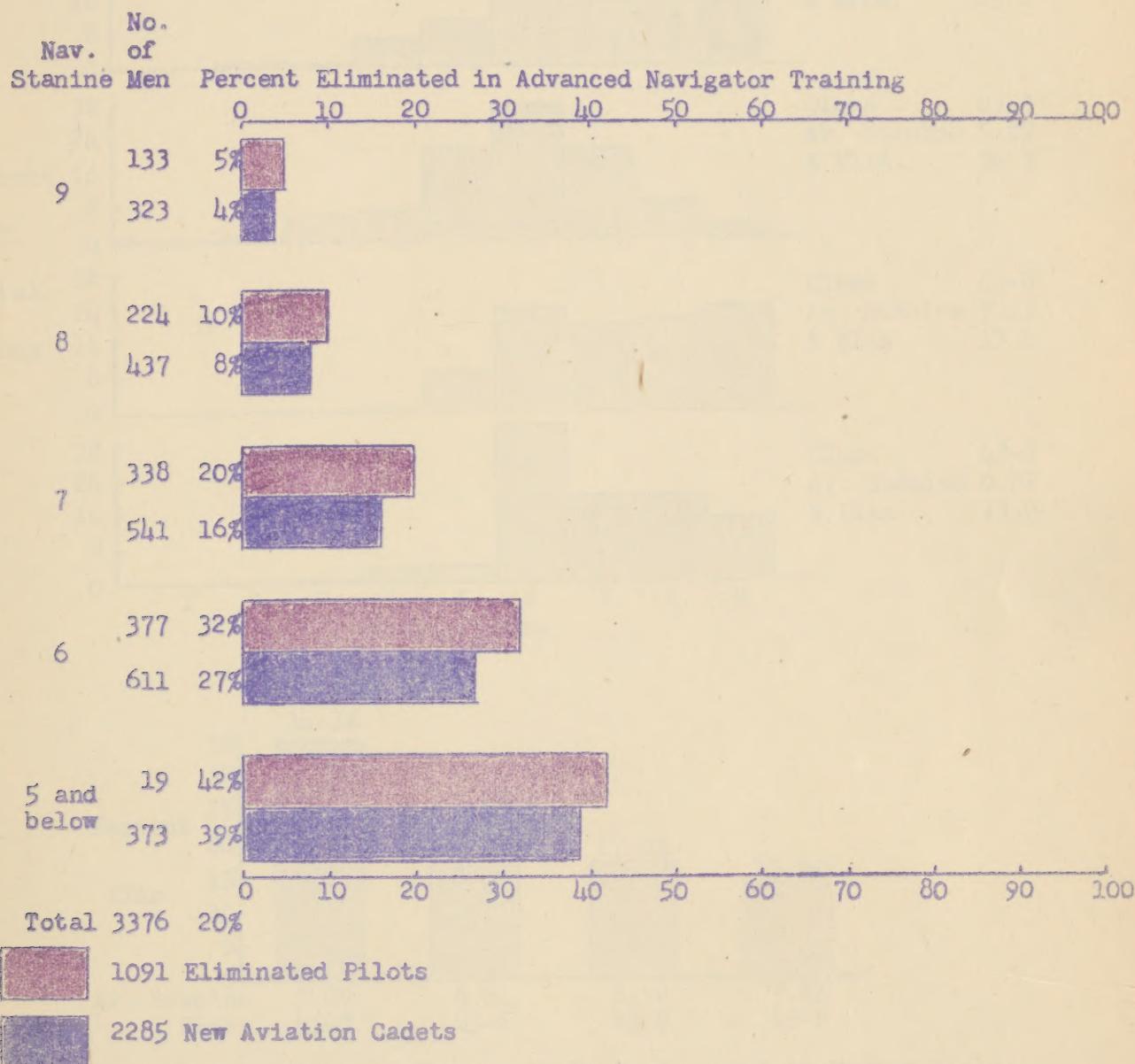
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NEW AVIATION CADETS WHO GO INTO NAVIGATOR TRAINING ARE SOMEWHAT MORE LIKELY TO SUCCEED THAN MEN WITH THE SAME STANINE WHO TAKE UP NAVIGATOR TRAINING AFTER BEING ELIMINATED AS PILOTS



The bars indicate the proportions eliminated at each navigator stanine score for eliminated pilots reassigned to navigator training and for new Aviation Cadets. Results are based on Navigator Classes 43-12, 13, and 14 at all training commands.

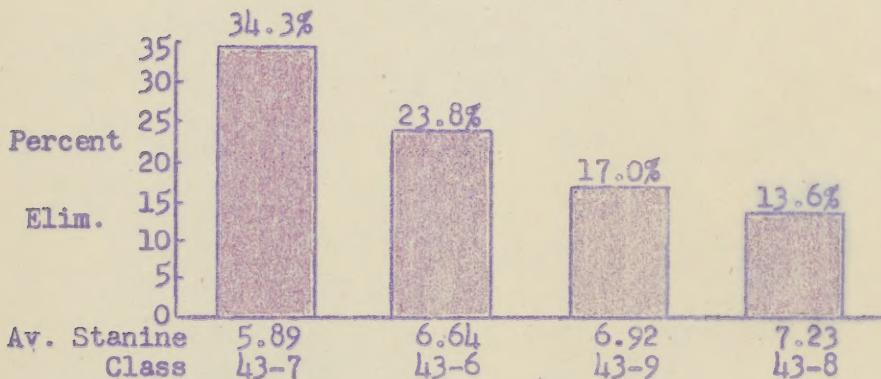
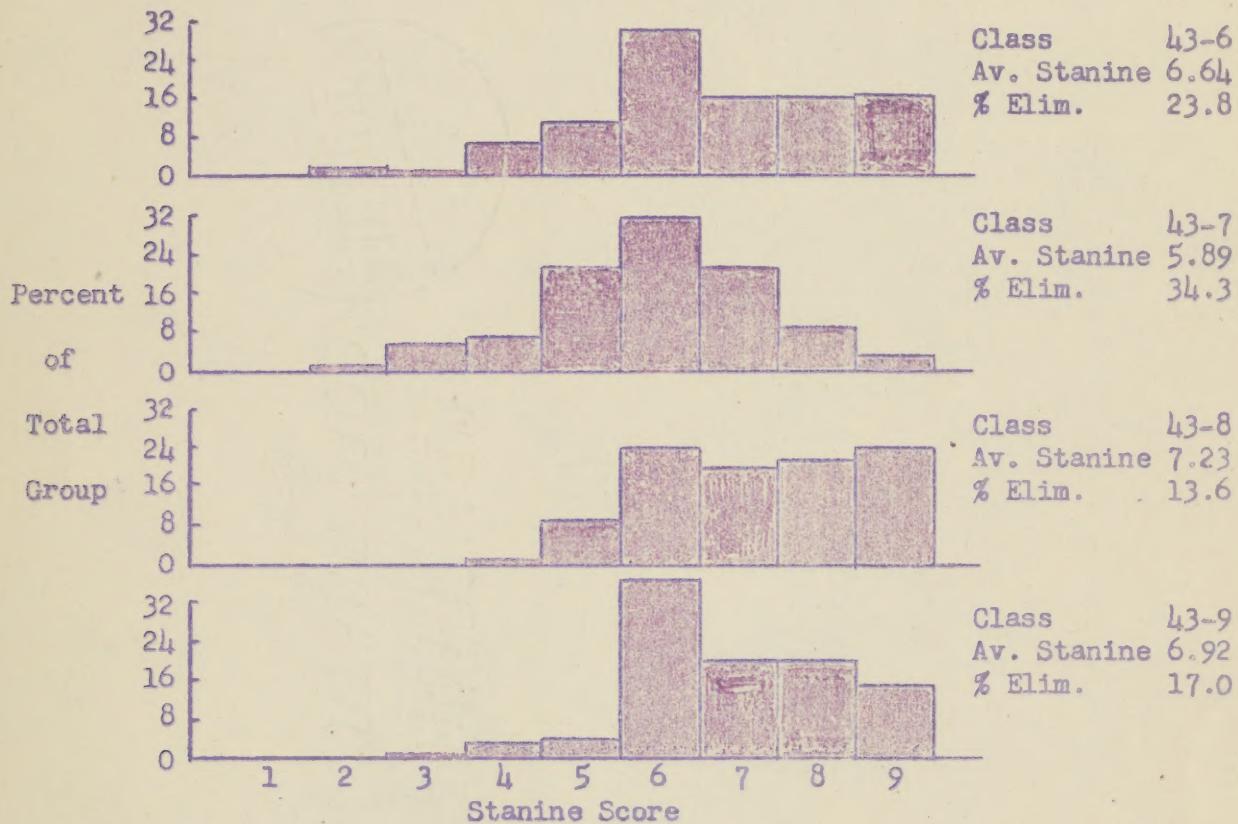
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THE HIGHER THE AVERAGE STANINE SCORE OF A NAVIGATOR CLASS THE LOWER THE ELIMINATION RATE TENDS TO BE



These data are from Navigator Classes 43-6, 7, 8, and 9 at Mather Field. In the top four charts, the height of each bar indicates the proportion of the class having that stanine score. In the bottom chart, the height of each bar represents the proportion of the class eliminated; and the classes have been arranged in order of percent eliminated. It will be noted that as the average stanine score of a class increases, as indicated under each bar in the bottom chart and by larger proportions at the high stanines in the top four charts, the percent eliminated goes down.

